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IN THE

Supreme Court of the United States

OCTOBER TERM, 1970

Nos. 464 and 469

GAINESVILLE UTILITIES DEPARTMENT,
CITY OF GAINESVILLE,
Petitioners,

v.

FLORIDA POWER CORPORATION,
Respondent.

FEDERAL POWER COMMISSION,
Petitioner,

v.

FLORIDA POWER CORPORATION,
Respondent.

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE FIFTH CIRCUIT

BRIEF FOR FLORIDA POWER CORPORATION

QUESTION PRESENTED

Respondent respectfully submits the question presented, properly stated, is:

Whether the Federal Power Commission, in ordering a forced connection of electric systems under Section 202(b)

of the Federal Power Act, must provide some formula for reasonable compensation to Florida Power Corporation for supplying the City of Gainesville with extremely valuable emergency backup (standby) service.

In Gainesville's Brief in Case No. 464, the question presented is stated to be whether the Federal Power Commission erred in not including in the compensation "an allowance for net benefits received by the smaller system [Gainesville] as a result of the interconnection, in addition to reimbursement for costs incurred by the large system [Florida Power]." This misstates the question because the Court of Appeals did not hold there must be an allowance for net benefits in addition to reimbursement for costs. The Court of Appeals denied enforcement of the Federal Power Commission's Order "insofar as no provision for the reasonable compensation of Florida Power is made." The Court left to the discretion of the Commission whether compensation should be based upon splitting benefits (proposed by the Presiding Examiner) as a possible alternative but not in addition to sharing costs (proposed by Florida Power).

In Federal Power Commission's Brief in Case No. 469, the question presented is stated to be whether the Federal Power Commission properly conditioned the interconnection upon compensation terms based on the relative burdens that each places on the interconnected network. This misstates the case because the Commission did not base compensation terms solely on relative burdens. The Commission prescribed compensation, based upon either a sharing of benefits, return of the service in kind or the seller's cost plus 10%, for every conceivable service across the connection except emergency backup service, which Gaines-

ville's attorney stated to be the "number one" kind of service Gainesville is asking for.[1] See paragraphs (7) (b), (d), (e), (f), (g) and (8) of the Commission's Order (App. 376-8). Only in the case of emergency backup service, Gainesville's "number one" requirement, did the Commission cite relative burdens as a reason for denying compensation.

STATEMENT OF THE CASE

While this case was begun by Gainesville filing an Application with the Commission for a forced connection under Section 202(b) of the Federal Power Act, the point at issue has not been and is not whether Florida Power should or will make available to Gainesville the advantages of an interconnection. As a part of its direct case in response to the Application, Florida Power voluntarily offered a connection to Gainesville by filing a Proposed Contract for Interconnection and Electric Service (See Exhibit 40, pp. 5a to 25a of the Appendix to this Brief). This Contract submitted by Florida Power offered Gainesville every conceivable service it requested on substantially the same terms as ordered by the Commission with the exception of compensation for emergency backup service which Gainesville and the Commission insist should be at Florida Power's sole expense. Throughout the proceeding, Florida Power has continued to offer Gainesville this voluntary connection.

Florida Power's opposition to a forced connection under Section 202(b) of the Federal Power Act has been and is to protect itself and its customers from and against man-

[1] Mr. Spiegel stated in oral argument before the Commission: "What kind of service are we asking for and what should we pay for it? We are asking, number one, we can live without everything else, but number one, we are asking for emergency backup service." See page 2a of Appendix to this Brief.

datory terms and conditions which (i) are not in the public interest insofar as the large public served by Florida Power is concerned and (ii) place an undue burden upon Florida Power and the large public served by it.

In order to place the question presented and area of disagreement in proper perspective, it is necessary to supplement Petitioners' Statements of the Case by pointing out the real and significant facts.

A most significant and inescapable fact is the great disparity in the capabilities of the electrical resources of Florida Power and Gainesville. Annual load growth on the Florida Power system is projected at almost twice Gainesville's 1966 peak load of 58.8 mw[2] and in excess of Gainesville's projected 1970 peak load of 102 mw.[3] Florida Power must provide on its system each year additional generation and transmission to serve annual load growth greater than Gainesville's entire load. Hence disparity in size and capabilities of electrical resources is a continuing and increasing reality.

Gainesville's generating capability of 138.4 mw is provided by units rated at 50 mw, 24 mw, 16.5 mw, 12.6 mw, 5 mw, 1 mw and two 15 mw gas turbines. Contrary to a representation in Gainesville's Petition for a Writ of Certiorari, Gainesville does not own any transmission facilities and has never proposed constructing any transmission facilities, except a 115 kv[4] loop around the City for in-

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[2] A megawatt (mw) is a large unit of electric generating capacity. It is 1,000 kilowatts or 1,000,000 watts.

[3] See Exhibit 34, which is reproduced on page 4a of the Appendix to this Brief and was introduced in evidence at R. 967.

[4] A kilovolt (kv) is a large unit of electrical voltage and a term used in rating transmission lines. Generally speaking, depending upon the size of the conductor, a 230 kv line has a capacity of approximately 350 mw, a 115 kv line has a capacity of approximately 125 mw, and a 69 kv line has a capacity of approximately 50 mw.

ternal use only and 7 miles of 115 kv line to connect this loop with Florida Power's backbone transmission network.

Florida Power's generation for the most part is provided by units rated at 527 mw, 404 mw, 232 mw, 125 mw, 125 mw, 88 mw, 84 mw, 80 mw.[5] Gainesville's largest 50 mw generator is about the equivalent of units which on the Florida Power system "are used only to meet peak load conditions and frequently are placed on cold shutdown" (App. 92-3, 156-7).

Florida Power's electric system includes a large backbone transmission network which, as of December 31, 1965, contained 410 miles of 230 kv lines, 1156 miles of 115 kv lines and 1409 miles of 69 kv lines, exclusive of radial (as distingushed from through transmission) lines. Exhibit 32 is a map of this transmission network.[6] Through this backbone transmission network, Florida Power is interconnected with the other four major electric systems in peninsular Florida (Tampa Electric Company, Florida Power & Light Company, Orlanda Utilities Commission and Jacksonville Electric Authority),[7] and with Georgia Power Company and Gulf Power Company. In 1970 Florida Power's backbone transmission network had a depreciated value of about $65 million with annual fixed charges and operating costs of about $13 million (App. 157-9, 192). A primary function (estimated at 60%) of Florida Power's backbone transmission network is furnishing system reliability by protecting against loss of a power source by delivering reserve (emergency) power to any point on the system where reserves are required.

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[5] Florida Power is constructing a nuclear fueled 875 mw unit scheduled for service in 1972.

[6] See Exhibit 32 in Appendix Exhibit Volume. This Exhibit was introduced in evidence at R. 967.

[7] These four systems in 1965 had a combined installed net plant generating capability of 5837 mw (Exhibit 4, Schedule 3, Sheet 3, introduced in evidence at R. 278).

Gainesville in its testimony and Exhibit 3 proposes to tap Florida Power's backbone transmission network by constructing about 7 miles of 115 kv transmisson line at an estimated cost of $1.5 million.[8] Statements in Petitioners' Briefs that Gainesville will spend $3 million on transmission for a connection with Florida Power result from an erroneous finding of the Commssion which is not supported by any evidence[9] and was totally refuted by the testimony. Mr. Ebaugh, the design engineer for the Gainesville system, did say on cross-examination that to interconnect Gainesville's generating plant to Florida Power's system would be double the $1.5 million figure (App. 41). Mr. Ebaugh explained that the second $1.5 million was the estimated cost of transmission and other facilities Gainesville will need whether or not there is a connection. He said, "it was for that reason that we didn't feel that they [facilities costing the second $1.5 million] should be charged against a possible intertie" (App. 41-2). The error in the $3 million figure has significance because typical of the obfuscation of the facts seemingly to create the impression Gainesville will make a substantial contribution to a connection with Florida Power and to mitigate the obvious gross inequities of the Commisson's Order.

Whatever the cost of the connection, it is unarguably clear from Gainesville's witnesses and attorney that the principal and underlying reason for the connection is to

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[8] See Table 3 in Exhibit 3 reproduced in Appendix Exhibit Volume and introduced in evidence at R. 82. The Commission's Order specifies "The facilities shall be substantially as described in Exhibit 3, modified as necessary for a minimum of 60 mva capacity" (App. 376). The modification ordered by the Commission would cost "under $50,000" (App. 39).

[9] Commission staff witnesses in their study of financial savings to Gainesville (see ft. 10, *infra*) used $1,553,000 as the cost of the connection (Exhibit 81 in Appendix Exhibit Volume was introduced in evidence at R. 1148).

obtain for Gainesville emergency backup service from Florida Power's backbone transmission network:

(1) Gainesville's principal witness, Mr. Benson, a consulting engineer formerly on the Staff of the Federal Power Commission, in his prepared direct testimony, testified: "Gainesville needs and wants the Commission to direct Florida Power . . . to supply emergency backup service to Gainesville in the magnitude of Gainesville's largest generating unit or the capacity of the interconnection, whichever is smaller" (App. 64-5).

(2) Mr. Ebaugh, the consulting engineer who since 1952 has designed the Gainesville system, explained that emergency backup service from Florida Power should eliminate the possibility of any generating deficiency on the Gainesville system (App. 36-38).

(3) Mr. Kelly, manager of the Gainesville system, testified that the connection would provide Gainesville with instantaneous emergency backup service at least equal to the load on its largest 50 mw generator (App. 53-55).

(4) Gainesville's attorney Mr. Spiegel stated: "We are asking number one, we can live without everything else, but number one, we are asking for emergency backup service" (see page 2a of Appendix to this Brief).

Emergency backup service is furnishing the facilities, in this case a $65 million backbone transmission network, capable of supplying instantaneously at any instant of the day or night the power required to protect against loss of a system's largest generator. Emergency backup service may fairly be likened to a fire department since it represents equipment in a continuous state of readiness to meet any generating deficiency. The reserve capacity supplied by emergency backup service must be instantaneously

available, or the system will suffer a frequency disturbance which can cascade, trip out other generating units, and shut down the entire system (App. 168, 243-4). On page 14 of its Brief in case No. 469, the Commission acknowledges, "If such reserve capacity is not immediately available when needed, a blackout or brownout may be precipitated."

Gainesville's principal witness, Mr. Benson, valued emergency backup service to Gainesville at $520,000 a year.[10] This is the annual financial saving to Gainesville from a reduction in its installed reserve of generation made possible by Gainesville relying upon Florida Power's transmission facilities for emergency backup service (App. 74-5, 105-6). The $520,000 a year represents Gainesville's net annual savings after recovering its costs in making the connection. These savings are the difference between the annual fixed charges on $6.7 million of generation eliminated by the connection less the annual fixed charges on $1.5 million of transmission constructed to tap Florida Power's backbone transmission network.

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[10] The Court of Appeals' opinion in footnote 8 states Florida Power witnesses estimated these savings at $520,000 a year. This $520,000 figure is that of Gaineville's principal witness, Mr. Benson. Florida Power witnesses did not attempt to estimate Gainesville's savings. Commission staff witnesses submitted a study showing Gainesville would realize investment and operating savings averaging about $231,000 a year (see Exhibit 81 in Appendix Exhibit Volume, which was introduced in evidence at R. 1148). This study used Mr. Benson's 8% of investment cost as the annual cost to Gainesville of transmission but used 6½% (rather than Mr. Benson's 10%) of investment cost as the annual cost to Gainesville of generation. Mr. Benson was authorized to speak for Gainesville (App. 52). If Mr. Benson's figure of 10% of investment cost had been used as the annual cost to Gainesville of generation, the study of Commission witnesses would show savings to Gainesville of about $408,000 a year. In addition, this study was based upon theoretical expansion plans which Gainesville had never even considered and which Commission staff witness Braitman testified Gainesville would not adopt if it made full use of the connection (App. 258).

The evidence established irrefutably, and Gainesville witnesses agreed, in the event of any loss of generation on the Gainesville system, power unavoidably and instantaneously will be supplied from Florida Power's transmission facilities to Gainesville in the amount of its requirements for emergency service (App. 53-55, 84, 165-6, 186-8). Without such emergency backup service from Florida Power, Gainesville is incapable of supplying its needs for instantaneous emergency electric service and must rely upon cutting off service to its customers to the extent of any generating deficiency on its system (App. 37-8, 204).[11] With such emergency backup service from Florida Power, there is no reason ever to have any generating deficiency on the Gainesville system (App. 37-8).

The evidence established irrefutably that emergency backup service will be a one way service from Florida Power to Gainesville (App. 173-5, 187). Florida Power must provide on its system through its backbone transmission network emergency power instantaneously available to withstand generating outages of 400 mw or more. As explained by the Presiding Examiner and by the Court of Appeals, emergency backup service from Gainesville to Florida Power is utterly meaningless because the City's three largest generators "at best" can supply an inadvertent or instantaneous energy transfer of only 6 mw, 3 mw and 2.5 mw. These small amounts are too insignificant for Florida Power to take into account in the planning and operation of its system because less than the hour to hour deviations between Florida Power's actual and scheduled production and less than the 30 to 40 mw margin of error which Florida Power allows in calculating its hourly requirements for spinning reserve (App. 323). Staff witness

[11] In the first paragraph on page 5 of the Commission's Brief in Case No. 469, it is admitted that while Gainesville can provide on its system spinning reserve to meet load variations, it can not provide the reserves needed to protect against loss of generation.

Braitman admitted Gainesville's ability to furnish instantaneous emergency service is so limited that following interconnection it would be "inadvisable" in operating the Gainesville system even to attempt to protect against loss of its largest generator (App. 255-6).

The Presiding Examiner is an expert in this technical and complex field, who heard the testimony and observed the witnesses. He found all of the facts to be as hereinabove set forth with the one exception that the annual savings to Gainesville would be "approximately $300,000" (App. 313-41). This finding as to savings was probably a compromise between the $520,000 estimate of Gainesville witness Benson and the $231,000 miscalculation of Commission staff witnesses. As noted in footnote 10 on page 8 of this Brief, the $231,000 figure of Commission staff witnesses resulted from an error in arithmetic and was based on the false premise that Gainesville would install generation in accordance with a plan which staff witness Braitman said it would not.

The Presiding Examiner found, among other things, "the fact of the matter is that . . . the Company . . . will at all times operate its system so as to have spinning capacity equal to the size of Gainesville's largest unit instantaneously available for delivery to Gainesville from any point on its system via its own transmission network; . . . and will give Gainesville's system a reliability of bulk power supply which it could not previously achieve in that it will be able to withstand a loss of generation up to 75 mw without interruption of service" (App. 331-2).

Because Gainesville at all times will be relying upon Florida Power's transmission facilities for a minimum[12]

[12] Actually Gainesville will receive instantaneous emergency backup service of 60 mw, the capacity of the connection, rather than 50 mw, the capacity of its largest generator. During an emergency the connection by overloading may supply even more than 60 mw (App. 412).

of 50 mw of emergency backup service (whether or not energy is being transferred) to the same extent as will Florida Power for its much larger requirements and because emergency backup service will be a one way service totally lacking in mutuality or reciprocity, Florida Power proposed Gainesville pay its fairly allocated share of the cost of owning and operating Florida Power's backbone transmission network. Based upon 1970 load projections, Gainesville's fairly allocated share of the cost was computed to be $3.08 per kw per year times the 50 mw which Gainesville "needs and wants" and which is Gainesville's "number one" requirement. The charge would total about $154,000 a year (App. 194) and is proposed until Gainesville installs electrical resources which provide some mutuality or parity in services and benefits (App. 175, 196). The cost to Gainesville of this share of Florida Power's costs would be far less than the financial savings of $520,000 a year which Gainesville, according to its principal witness Mr. Benson, will derive from emergency backup service (App. 49, 75-6, 105-6).

The Presiding Examiner agreed Florida Power should be compensated, but in lieu of the $3.08 per kw per year demand charge, proposed compensation based upon "50 percent of the difference between the total savings to Gainesville less the total savings to Florida Power, or vice versa" (App. 333).

The Commission prescribed compensation (based either upon a sharing of benefits, or return of a service in kind, or the seller's costs plus 10%) for every conceivable service across the connection but emergency backup service.[13]

[13] See paragraphs (7)(b), (d), (f), (g) and (8) of the Commission's Order which prescribe charges or sharing benefits whenever there is a sale or exchange of generating capacity or energy (App. 376-8).

With respect to emergency service, the Commission prescribed compensation only for energy delivered during an emergency.[14] Remarkably, the Commission failed to recognize that compensation for emergency energy in no way compensates for emergency backup service, which is not the supplying of energy but is the providing of facilities in a state of readiness capable of meeting immediately any generating deficiency. Emergency backup service is the "fire department". Emergency energy is the "water" used to put out the "fire". The Commission ordered Gainesville to pay for the "water" but relieved Gainesville from all responsibility to contribute to the cost of providing and maintaining the "fire department".

The Court of Appeals properly agreed with the Presiding Examiner that equity and the statutory pre-conditions of Section 202(b) require there be some reasonable compensation for the "number one" and the "extremely valuable service" which is the fundamental and underlying reason for the connection. The Court properly rejected the Commission's novel theory, seemingly created for this case,[15] that compensation for emergency backup service, but not compensation for any other service, should be based upon proportionate sharing of responsibilities according to size (relative burdens) and not upon services rendered or facilities supplied.

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[14] In paragraph (7)(e) and (g) (1) of its Order, the Commission provided for energy transferred during the first 60 minutes of an emergency to be returned in kind or paid for at 4 mills per kwh or the seller's fuel cost plus 10%, whichever is less. As noted above, Gainesville at all times will be relying upon Florida Power for emergency backup service whether or not energy is being transferred. The transfer of energy will be relatively unimportant. At 4 mills per kwh, 50 mw for one hour represents only a $200 transaction.

[15] So far as Florida Power is aware and can discover, the theory that the determining factor in fixing compensation is not services rendered or facilities supplied but is proportionate sharing of respon-

ARGUMENT

INTRODUCTION AND SUMMARY

The Court of Appeals' decision is clearly correct in remanding the case to the Federal Power Commission to fix some formula to compensate Florida Power for emergency backup service. Section 202(b) of the Federal Power Act requires, as pre-conditions to a forced connection, express findings by the Commission that such action is (i) necessary or appropriate in the public interest and (ii) not an undue burden upon the utility. These statutory pre-conditions require some provision for reasonable compensation where the connection will compel Florida Power to supply Gainesville with large quantities of extremely valuable emergency backup service and where Gainesville can not reciprocate by furnishing Florida Power with an equivalent service.

The Court of Appeals properly rejected the Commission's theory with respect to emergency backup service that there is no need to provide compensation if there will be a sharing of responsibilities or burdens in proportion to size. This relative burdens theory is utterly meaningless. As an actual, practical fact the connection inevitably and unavoidably will impose upon Florida Power entire responsibility at all times to provide emergency backup service for both systems. If Gainesville can and does assume responsibility to provide emergency backup service in proportion to its size, the amount is too small to have any significance or meaning whatsoever.

The decision of the Court of Appeals in requiring some formula for compensation on the basis of services rendered is consistent with industry practice and regulatory prece-

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sibilities according to size (relative burdens) has never been suggested by the Commission or by any other regulatory body on any prior occasion.

dent, and will encourage systems to interconnect by preserving the incentive or motivation that is the basis for interconnections between systems. Reasonable compensation is not a discriminatory charge or an economic penalty for being the last to join an interconnection. As proposed by Florida Power on the basis of an allocation of cost, the compensation would be only $154,000 a year for "an extremely valuable service" which Gainesville's principal witness stated would save the City $520,000 a year. The failure to require Gainesville to pay reasonable compensation is discriminatory of Florida Power and its customers, and imposes an economic penalty upon Florida Power and other systems which have been the first to form and join the interconnected network.

Florida Power will not derive from the connection any benefit which would justify the denial of compensation for providing Gainesville with emergency backup service. If and to the extent Florida Power receives any benefit, it will be in the form of a service across the connection for which Florida Power will pay compensation in accordance with the Commission's order either by sharing savings, returning the service in kind or reimbursing Gainesville for its cost plus 10%.

The decision does not infringe upon the discretion of the Commission or interfere with the exercise of its administrative expertise in determining what is reasonable compensation. The decision merely requires the Commission to act. It carefully preserves to the Commission complete freedom of action.

I.

THE DECISION OF THE COURT OF APPEALS IN REQUIRING SOME FORMULA FOR REASONABLE COMPENSATION FOR EMERGENCY BACKUP SERVICE IS CLEARLY CORRECT.

As pre-conditions to compelling a connection under Section 202(b) of the Federal Power Act, the Commission must find (i) "such action necessary or appropriate in the public interest", and (ii) "no undue burden will be placed upon" the utility. The last sentence of Section 202(b) states the Commission "may prescribe the terms and conditions" including "the apportionment of cost" and "the compensation or reimbursement reasonably due". It would seem axiomatic the Commission may not exercise the permissive power to prescribe terms and conditions in a manner that nullifies or negates the continued existence of the preconditions that its action (i) be necessary or appropriate in the public interest, and (ii) not place an undue burden on the utility.

The public affected by Gainesville establishing physical connection with Florida Power's transmission facilities is the 370,000 retail customers of Florida Power, the customers of Florida Power's 12 municipal and 9 REA wholesale customers, and Gainesville's 17,212 retail customers. Certainly public interest calls for what is best for this entire public and not just what will benefit the small public served by Gainesville (App. 135-6, 182-4).

The Court of Appeals accurately sifted the facts of this case from the fiction and correctly decided the case on the basis of the equities of the real facts. The Court recognized the real purpose and function of the interconnection is to obtain an additional power source for Gainesville; "the disparity in the sizes of the Gainesville and Florida Power systems and in the sizes of their electric resources is strik-

ing and highly signficant"; "Florda Power, because of the relatively small size of the City's generators, would receive no significant additional reliability"; "Florida Power's backbone transmission network has so many power sources more efficient and more economical than Gainesville's small generators it is totally unrealistic to consider the City's system a significant power source"; "Through the interconnection it [Gainesville] receives essential emergency back-up, which is a service at all times instantaneously available, and which protects it [Gainesville] against the outage of the largest of its generators"; the connection imposes upon Florida Power, really upon its customers through their cost-based rates, the entire burden and expense of providing extremely valuable emergency backup service for both the Florida Power and Gainesville systems; it is "imaginary equity" to excuse Gainesville from paying any reasonable compensation whatsoever for this "extremely valuable service" because of alleged benefits to Florida Power which are "largely illusory" and "unrealistic as well as vague" (App. 489-503).

The reasons why Gainesville should pay some reasonable compensation for emergency backup service are: first, emergency backup service is an extremely valuable service which is the underlying reason and justification for the connection and which is Gainesville's "number one" service requirement; second, the connection inevitably and unavoidably will impose upon Florida Power the burden and responsibility to supply emergency backup service for its own system and for the Gainesville system in an amount limited only by the capacity of the connection; third, emergency backup service is completely lacking in reciprocity or mutuality since Gainesville can not respond in kind because of the limited capability of its facilities; fourth, unless Gainesville compensates Florida Power for the continuous availability of emergency backup service, the cus-

tomers of Florida Power in their cost-based rates will be required to bear the whole cost of this service for both systems.

Florida Power proposed compensation be based upon an allocation of the cost of its backbone transmission network because this network is the means by which emergency backup service will be supplied to both systems. The network not only interconnects Florida Power's own power sources but makes available to the Florida Power system (and to Gainesville following interconnection) all power sources of the interconnected systems.

This $65 million transmission network, with annual fixed charges and operating costs of about $13 million, is the means by which Florida Power has obtained the financial benefits inherent in a reduction of its installed reserve of generation. By interconnection, Gainesville can effect a corresponding reduction in its installed reserve of generation because, and only because, Gainesville will be relying upon the network's power sources for the continuous availability of instantaneous emergency backup service. To the extent of its load and the capacity of the connection, Gainesville will place the same responsibility upon the network for emergency backup service as will Florida Power for its much larger requirements.

The suggestion of the Presiding Examiner that compensation be based not on a sharing of transmission costs but on splitting the operating savings has precedent in industry practice, particularly with respect to what are known as economy energy transactions, i.e. exchanging energy by utilizing for the load of both systems those generators on the combined systems having the lowest incremental operating costs. In fact, in paragraph (7)(b) of its Order in this case the Commission provided compensation by split-

ting the savings from economy energy transactions (App. 376-7). The suggestion of splitting operating savings is acceptable to Florida Power, as also is any other reasonable formula.

The fact Florida Power may be able to provide Gainesville with emergency backup service without any immediate increase in its own capital and operating costs is not a valid reason for not requiring Gainesville to pay its fair share of Florida Power's costs incurred to provide emergency backup service for both systems. If Gainesville is entitled to free service on a theory of no added cost, then any person desiring transportation when an airline has an empty seat should be entitled to a free ride, and any person desiring overnight accommodations when a hotel has an empty room should be entitled to free lodging.

Requiring Gainesville or any recipient of a valuable service to pay reasonable compensation is not discriminatory. However, flagrant discrimination is perpetrated if Florida Power's customers are required to pay in their rates the cost of continuous availability of emergency backup service (including service to Gainesville), and the same service is given to Gainesville's customers for free.

The argument that the Commission's Order imposes no firm obligation upon Florida Power to supply Gainesville with emergency backup service, that this service is to be supplied only in the event of an emergency on a when, as, and if available basis, obfuscates the actual, practical consequence of the Commission's Order which prescribes interconnection facilities "as described in Exhibit 3" (App. 375-6). Exhibit 3 contains the following:

"B. *Usage of Facilities*

1. The interconnection is to be operated closed at all times, except when opening is required for reasons

of safety, repairs or maintenance work. Both parties shall make every attempt to keep the duration of open circuit intervals to a minimum."

The behavior of electricity is such that with the connection operated closed Florida Power inevitably and unavoidably at all times will provide Gainesville with instantaneous emergency backup service in an amount limited only by the capacity of the connection. All of Gainesville's engineering witnesses acknowledged this to be a fact: Mr. Kelly, the manager of the Gainesville system (App. 54-5); Mr. Ebaugh, the design engineer for the Gainesville system (App. 36-8); Mr. Benson, a consulting engineer who was Gainesville's principal witness for this case (App. 84). Mr. Hebb and Mr. Woodson, engineers for Florida Power, also described this continuous availability of instantaneous emergency backup service to Gainesville (App. 165-6, 187-8).

Furthermore, in the operation of its backbone transmission network, Florida Power can not even subordinate Gainesville's needs for the continuous availability of reserve power to the needs of the Florida Power system without opening the connection in violation of the Commission's Order.

The argument that instantaneous emergency backup service will not be continuously available as a firm commitment from Florida Power to Gainesville but will be available to Gainesville only on a when, as and if available basis is belied by the fact Gainesville proposes to reduce its installed reserve of generation from about 100% to 15% of its peak load by relying upon the connection, and the Commission has ordered such a reduction. If there were any truth to this argument, Gainesville and the Commis-

sion would be irresponsible in proposing and ordering such a reduction in Gainesville's installed reserve of generation.

The argument that in some emergencies Gainesville will be able to contribute as much as 60 mw to 100 mw (limited by the capacity of the interconnection) is not a valid reason for denying compensation for the continuous availability of instantaneous emergency backup service because: (1) reserve generation which Gainesville or any system can make available after a short interval is very different from and no substitute for the continuous availability of emergency backup service immediately available; (2) when Gainesville's reserve is reduced to 15% of estimated annual peak hour demand, as ordered by the Commission, Gainesville will not have reserve capacity to supply 60 mw even if given two hours to start all of its units; (3) if and to the extent Gainesville during an emergency does make capacity or energy available after a short interval, it will be fully compensated by paragraph (7)(e) and (7)(f) of the Commission's Order; (4) if there is time for human reaction to start Gainesville's reserve generation, then Florida Power will have the same time to place reserve generation in service on its own system; and (5) if there is time for human reaction and Florida Power does not have sufficient reserve generation on its own system, other systems with whom Florida Power is interconnected have reserve generation provided by units which are much larger and more efficient than anything on the Gainesville system.

II.

REPLY TO ARGUMENT COMPENSATION FOR EMERGENCY BACKUP SERVICE SHOULD BE BASED UPON A PROPORTIONATE SHARING OF ELECTRICAL RESPONSIBILITIES.

1. *Proportionate sharing of electrical responsibilities works only one way where there is a large disparity in the capabilities of electrical resources.*

Commission's Brief in Case No. 469 begins its argument in support of its relative burdens theory by citing (on pages 15 and 16), in explanation of the savings that can be realized from interconnection, an example of four isolated systems each with an annual peak load of 500 mw served by several generators the largest of which on each system is 200 mw. In this example each system's proportionate share of the operating and installed reserve requirements of the interconnected systems is obviously the same. The interconnection is fully reciprocal because each system has the same potential for supplying each of the other systems with the same system reliability and emergency assistance as it will receive from each of the other systems. But this example and the relative burdens theory derived from it are in no way relevant or applicable to the case at bar.

Commissioner Carl E. Bagge of the Federal Power Commission, in an address before the American Public Power Association, Legal Seminar, on November 13, 1967, pointed out that a small system like Gainesville with a largest generator of 50 mw can not contribute significantly to a connection with a large system such as Florida Power:

> "It is, of course, obvious that an isolated system which is unable to install units in excess of 25 or 50 megawatts is not going to be able to take full advantage of the benefit of the new technology. The very fact, however, that its largest units are in this size category tends to produce a reluctance on the part of

its larger neighbors to pool with it since the great bulk of the benefits normally will flow to the small system, and from the viewpoint of the larger systems, even if the arrangements between the parties reflect this disparity, the necessary complications of any but the most rudimentary pooling arrangements may hardly be worth the effort."

Gainesville witness Ebaugh, since 1952 the principal design engineer for the Gainesville system, in Gainesville's Ten-Year Master Plan of September 1965, concluded the Gainesville system is not large enough "to contribute much" to an interchange arrangement, and "The Gainesville generating capacity is not large enough to contribute significantly to the Florida Power Pool at the present time".[16]

The principles and considerations governing the development of interconnection between electric systems are well described in an article entitled *Power Pools and Joint Plant Ownership* by Abraham Gerber, Public Utilities Fortnightly, Vol. 82, No. 6, p. 23 (9/12/68). This article at pages 28-9 explains that where there is a great disparity in size between systems being interconnected, "it is obvious that there would be no mutuality to any of the principal economic functions of the interconnection unless the small system made monetary payments for the excess of benefits it received." This is so because "The performance of the small system is irrelevant to the reliability of the bulk power supply of the larger systems. In the event of a disturbance of the small system, no matter what its magnitude, the generating and transmission facilities of the large systems would automatically compensate to maintain the stability of the interconnected systems. In the

[16] See Excerpts from Exhibit 100 in Appendix Exhibit Volume. This Exhibit was introduced in evidence at R. 1460.

event of a disturbance to power supply on the large systems, the small system could not compensate for the disturbance, even if it had all its units on the line . . . the small system achieves substantial additional reliability upon interconnection, while adding nothing to the reliability of the large systems."

As previously noted, the connection proposed in this case inevitably and unavoidably will impose upon Florida Power, the large system, responsibility to provide emergenery backup service for both systems. This is an inescapable fact resulting from the physical laws governing the behavior of electricity. The responsibility is a firm obligation imposed by natural law regardless of what the Commission may or may not say about Florida Power providing firm service to Gainesville. Florida Power not only is responsible to supply Gainesville requirements but can not even subordinate Gainesville's needs for emergency service to its own except by opening the connection in violation of the terms of the Commission's Order.

Conversely, it is totally irrelevant and immaterial whether Gainesville does or does not assume a proportionate share of responsibility. Gainesville's proportionate share of emergency backup service as a member of the Florida Operating Committee would be only about 12 mw to 15 mw, of which two-thirds or 8 mw to 10 mw would be spinning reserve instantaneously available and the rest would have to be available within ten minutes.[17] Assuming Gainesville can and does supply 10 mw to 15 mw of emergency backup service, these amounts are too small to have any meaning or significance. Florida Power, which must have 400 mw or more of emergency backup service continuously available, would derive nothing from Gaines-

[17] See Exhibit 76, Table A, in the Appendix Exhibit Volume. This Exhibit was introduced in evidence at R. 1148.

ville's 8 mw to 10 mw of spinning reserve because, as the Presiding Examiner pointed out, those small amounts are "less than the hour to hour deviations between Florida Power's actual and scheduled production, and less than the 30 mw to 40 mw margin of error which the Company [Florida Power] allows in making its spinning reserve calculations" (App. 173-5, 323).

The invalidity of the Commission's theory of proportionate responsibility in this instance is demonstrated by the fact that Gainesville, Florida Power and Commission staff witnesses agreed it is inadvisable for Gainesville to assume a proportionate share of responsibility for emergency backup service as ordered by the Commission because doing so would require Gainesville to incur the unnecessary and useless expense of operating its 24 mw, 16.5 mw and other small generators (App. 94-6, 167-8, 255-6, 322). Gainesville's proportionate share of responsibility is not only meaningless but requires a wasteful, uneconomic method of operation.

Where there is a large disparity in the capabilities of electrical resources, the plain, inescapable fact of the matter is, as the Court of Appeals so correctly stated: "The Commission's policy of proportionate utility responsibility really works only one way. The small system receives high benefits and, because of its size, no real obligations. The large system, however, receives no benefit and does incur real, substantial responsibilities" (App. 503).

2. *The Relative Burdens Theory is Not Consistent With Industry Practice.*

Interconnection of electric systems is a development which the industry has voluntarily undertaken to obtain important service and economic benefits. The keystone of interconnections is service benefits, not burdens and not sharing burdens except as that sharing is of some benefit.

In its report known as the *National Power Survey* (1964), the Federal Power Commission described[18] the purposes of interconnections. The *Survey* refers repeatedly to "savings" and to "benefits", and does not mention relative burdens.

The development of interconnections and the underlying principles and considerations governing their development are well described in the article entitled *Power Pools and Joint Plant Ownership* by Abraham Gerber, Public Utilities Fortnightly, Vol. 82, No. 6, p. 23 (9/12/68). This article points out that by substituting transmission facilities for duplicative generating facilities, interconnected systems are able to exchange one or more service benefits, such as firm power supply, reduction of installed generating reserves, economic loading of generators, short or long term purchases of capacity and/or energy, utilization of load diversity to reduce generating requirements, greater flexibility in maintenance, and staggered construction of generators. Fundamental to every interconnection is emergency assistance by one system to another. Also, fundamental is reciprocity or mutuality in service benefits, and where a service can not be returned in kind, monetary compensation is required. No system is expected to subsidize another.

Commission staff witness Braitman in his explanation of interconnections and power pools recognized such arrangements are founded upon economic benefits and financial savings. He stated: "Intersystem coordination expanded steadily over the years as economic opportunities were made available by improving technology" (App. 425). "The significant fact is that all members of a power pool benefit. The distribution of benefits is dependent upon many factors" (App. 429). "The substantial economic benefits that

[18] Part I, Chapter 2, p. 169 et seq.

can be achieved from improved technology and interconnections should also stimulate the formation of new power pools and the expansion of existing ones" (App. 430).

Gainesville witness Benson stated, "the principal and underlying justification for the interconnection" in this case is the reduction in reserve requirements (available only to Gainesville), "the interconnection-coordination agreement is founded on the benefits of capacity savings" (App. 96). Witness Benson conceded these Gainesville capacity savings are made possible because of Florida Power's backbone transmission network and the many power sources with which it is interconnected (App. 82-3).

Florida Power's interconnection arrangements with other systems are indicative of industry practice. In the case of most of Florida Power's interconnections with Florida Power & Light Company, Tampa Electric Company, Orlando Utilities Commission, Georgia Power Company and Gulf Power Company,[19] there is reciprocity or mutuality in service benefits because each system is able to provide substantially equivalent emergency assistance to the others.

However, in the case of two connections lacking reciprocity in service benefits, Florida Power has effected special arrangements for monetary compensation. One such case involved a connection with Florida Power & Light Company which system was required to pay all of the fixed charges and administrative costs of a connection with Florida Power until the connection became mutually beneficial. The other such case is with Gulf Power Company to whom Florida Power is paying $5.80 per kw per year for 12 mw of demand for a connection which Gulf Power effected for

[19] Florida Power has no direct connection with Jacksonville Electric Authority and is connected to that system only indirectly as a result of interconnections with Florida Power & Light Company.

the unilateral benefit of Florida Power (App. 160). It is completely erroneous to ignore or to attempt to distinguish the special arrangements with respect to these two connections because they are typical examples of industry practice in providing financial payments to balance the absence of mutuality in service benefits.

Commission staff witness Braitman testified to the importance of transmission is handling emergency power and to the industry practice of compensating in some manner the party to an interconnection providing the greater share of transmission. On cross examination, he said, "in coordination, one of the biggest problems that individual systems have to work on is trying to achieve equity in the sense that the system that is providing a greater share of transmission be somehow compensated for it". As an example of one way to achieve equity, he explained that in the Pennsylvania-New Jersey-Maryland (P-J-M) pool, systems which have not provided a fair share of transmission have not been accorded equal treatment and have been required to maintain higher reserves (App. 243-4, 260-1).[20]

It is wrong to argue the proposal to require Gainesville to pay reasonable compensation for a unilateral service benefit is discriminatory because no similar charge is made

[20] Commission staff witness Braitman did not question that a party receiving a service should pay reasonable compensation for it, or criticize the way Florida Power measured Gainesville's share of the cost of providing the continuous availability of emergency backup service for both systems (App. 451). Witness Braitman objected to any payment of compensation by Gainesville on the ground that computer studies, which he called loss of load probability studies, showed Florida Power would place greater reliance upon and a greater burden upon the connection than Gainesville. The Court of Appeals correctly labelled this contention "largely illusory", "unrealistic as well as vague" (App. 502). At pages 36 to 38, *infra*, these loss of load probability studies are shown to be a mere theoretical exercise in arithmetic based upon utterly false premises.

by Florida Power for connections from which it obtains reciprocal emergency assistance and other benefits. Florida Power's fully reciprocal arrangements with other systems are in no way relevant to the Gainesville situation. However, it is discriminatory of Florida Power and its customers not to recognize the complete absence of mutuality in the connection with Gainesville and not to provide some financial payment to effect parity.

In sum, industry practice is founded upon the mutual exchange of economic benefits and upon some method of achieving equity where reciprocity is lacking. The industry has had little actual experience with connections where there is no reciprocity, as in the Gainesville situation and the example given by Commissioner Bagge in his 1967 speech. The industry has had no experience with forced connections compelled by order of the Federal Power Commission since this is the first fully litigated case.[21]

3. *The Relative Burdens Theory is Not Consistent With Commission Practice.*

Insofar as Florida Power can discover, the relative burdens theory has no precedent in Commission practice. In no other instance has the Commission applied this relative

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[21] The earlier case of *New England Power Company v. Federal Power Commission*, 349 F. 2d 258 (C.A. 1, 1965) was not really a forced connection case but was a rate case since the parties already were interconnected and the real issue was whether a municipality could obtain a lower rate for purchased power by compelling a direct connection and eliminating an affiliate-middleman. The prior decision in *Crisp County Power Commission v. Georgia Power Company*, 42 FPC 1179, 67 PUR 3d 75 (1966) is not a precedent because, as hereinafter noted on page 30, *infra*, the parties effected a settlement approved by the Commission in which it was agreed that Crisp County would compensate Georgia Power for standby service by means of capacity charges, and that the Commission's decision, never having become final, would be without force, effect, or precedential value.

burdens theory to refuse any formula for reasonable compensation to equalize service benefits.

As noted on page 25, *supra*, the Commission in its *National Power Survey* (1964) recognized that interconnections are founded upon the exchange of services and benefits.

In its Report to the President entitled *Prevention of Power Failures* (1967), the Commission stated (page 3) that reliability and economy provided by interconnections should be available to all users of bulk power, but "at the same time these users must contribute their proper share of the cost." On page 39 after expounding the importance of small systems participating in power pools and carrying their share of responsibilities, the Commission said, "To the extent it may be physically impossible for a small system to fulfill all such obligations in kind, equalization should take the form of exchanging power or dollars among the systems." Going on, the Commission said, "No formulae have been accepted as universally applicable to these situations . . . a wide range of pertinent factors are being considered such as relative benefits, methods of participation, reliability of service, conservation of natural resources, alternative opportunities and broad equities."

The Commission has jurisdiction under Sections 205 and 206 of the Federal Power Act (16 U.S.C.A. Sections 824 d and e) over rates for services provided by interconnection agreements. In its only reported decision involving rates for services across an interconnection, the Commission stated that interconnections are "a well established and growing industry practice" for "the interchange of various classes of service", that "By the very nature of any such coordination and interchange arrangement, there is a mutual exchange of services and benefits." *Public Service*

Company of Oklahoma, 25 FPC 656, 659, 38 PUR 3d 384, 388 (1961). With respect to rate making principles applicable to interconnections, the Commission went on to say the problems and issues "involving a mutual exchange of services in a power pooling or interchange arrangement are different from those arising in a rate proceeding involving a one-way service agreement", and that "other considerations, such as whether there is a sharing of the fruits of co-ordinated operations, all play a part."[22]

The only other known case is *Crisp County Power Commission v. Georgia Power Company*, 42 FPC 1179, 1189, 67 PUR 3d 75, 82 (1966). Footnote 23 on page 23 of the Commission Brief in Case No. 469 fails to tell the whole story of this case. It most assuredly is not a precedent for the Commission's relative burdens theory because under a settlement agreement approved by order of the Commission dated December 19, 1969, the case was settled by an agreement which provides for Crisp County to compensate Georgia Power for standby service by means of capacity charges. The settlement agreement also specified that the Commission's tentative opinion, "never having become final, will be without force, effect, or precedential value." In its tentative opinion which the Commission agreed should not have precedential value, the Commission, in its discussion of the provisions of Section 202(b), said, "It is clear that under these standards [the pre-conditions of Sec-

[22] The decision recognized standby or emergency service is a separate class of service. Since the emphasis of the opinion is upon the mutual exchange of services, presumably the capabilities of the systems to provide this service were mutual. The decision provides for emergency energy deliveries of less than 24 hours duration to be returned in kind and of more than 24 hours duration to be paid for at 5¢ per kw per day plus an energy charge. This is an appropriate method of compensation where there is mutuality in the ability to provide emergency assistance, but is not appropriate where mutuality is lacking.

tion 202(b)], interconnections between large and small systems need not, and in fact cannot, be a one-way street with all the benefits thereof flowing to the small system."

The hearings in this Gainesville-Florida Power case were closed in March 1967. The files of the Commission, which are a matter of public record, show that since that date the Commission has approved compensation for emergency backup (standby) service in all respects identical to that requested by Florida Power and for which the Court of Appeals has ordered the Commission to fix some formula.

Southeastern Power Administration (SEPA) is an agency of the United States Government within the Department of the Interior. SEPA, under its rate schedule SC-1 (Revised), approved by the Federal Power Commission on June 29, 1970, charges South Carolina Public Service Authority for dependable capacity $0.90 per kw per billing month ($10.80 per kw per year) and for standby capacity $0.25 per kw per billing month ($3.00 per kw per year), plus 3 cents per kw per calendar day or fraction thereof for such standby capacity actually utilized.

The files of the Commission also show that on June 17, 1968,[23] the Commission approved SEPA's rate Schedule CR-2-A for the supply of standby service to three generation and transmission cooperatives. That Schedule provides for a standby capacity charge of $2.75 per kw per year, plus 4 or 6 cents per kw per day for standby power

[23] In the order of June 17, 1968 approving SEPA's charges for emergency standby service in its Schedule CR-2-A, the Commission found that SEPA's rates would not be inconsistent with the Flood Control Act of 1944. Section 5 of that Act (16 U.S.C.A. § 8255) requires power and energy to be disposed of in such manner as to encourage the most widespread use thereof at the lowest possible rates to consumers consistent with sound business principles. The Act directs rate schedules shall be drawn having regard to the recovery of the cost of producing and transmitting such electric energy.

actually delivered, plus an energy charge of 3.25 mills per kwh for all emergency standby energy. Two cooperatives are each being charged by SEPA for 100 mw and the third for 38 mw of standby capacity.

The Commission, on page 23 of its Brief in Case No. 469, attempts erroneously to distinguish these SEPA rates from that proposed by Florida Power on the ground the SEPA rates are for a firm reservation of generating capacity, and by contrast, Florida Power would be under no firm obligation to provide power or reserves to Gainesville. In actual fact, the reverse is true. As previously noted, the inevitable and unavoidable consequence of Gainesville tapping Florida Power's backbone transmission network is that Florida Power at all times will provide a continuous availability of instantaneous emergency backup service limited only by the capacity of the connection. Florida Power's commitment by natural law is firm, positive and inescapable. By contrast, SEPA's rates for standby service by contract are predicated upon the same 100 mw being sold as standby capacity to three customers with the understanding the customer first in need shall have the first call on that capacity. Thus, the SEPA commitment is not a firm dedication of capacity to each of the three customers but is a limited obligation to furnish emergency power on a when, as and if available basis.

Rate schedules accepted by the Commission include others that provide some formula to compensate for emergency backup or standby service where reciprocity is lacking. Examples may be found in rates filed by Virginia Electric Power Company, Central Louisiana Electric Company, Inc., Utah Power and Light Company, Nevada Power Company, and Kansas City Power and Light Company.

It is plainly wrong to argue, as is done in Petitioners' Briefs in both Cases Nos. 464 and 469, that to allow Florida Power reasonable compensation for emergency backup service would violate the Commission's fundamental principles of setting rates on the basis of costs and not on the basis of the value of the service as disapproved in *South Carolina Generating Co. v. Federal Power Commission*, 249 F. 2d 755 (C.A. 4, 1957), certiorari denied 356 U.S. 912, and other cases cited. These decisions have no relevance because Florida Power has not proposed a rate based upon the value of the service to Gainesville. Florida Power has proposed a rate of $154,000 a year based upon an allocation of its costs for a service which Gainesville's principal witness testified will provide savings of $520,000 a year. Nor would the alternative suggestion of the Presiding Examiner that compensation be based upon a splitting of benefits be rate making on the basis of the value of the service.

3. *The Relative Burdens Theory Will Discourage Not Encourage Interconnections.*

The Commission's argument on page 17 of its Brief in Case No. 469 that its relative burdens theory is necessary to encourage and maximize interconnections is just plain wrong. The argument is based upon an erroneous premise that the industry is now composed of a large number of power pools voluntarily negotiated to share burdens in proportion to size.

As previously noted, the motivation and incentive for interconnections is the obtainment of services and benefits. Systems will be discouraged from effecting voluntary interconnections if the motivation and incentive is removed, and the relative burdens theory requiring one system to

subsidize another is substituted. The Commission correctly stated the proper way to encourage interconnections in its Report to the President on *Prevention of Power Failures* (1967) when it said each system "must contribute their proper share of the cost" and that in negotiations between utilities consideration should be given to a wide range of pertinent factors including relative benefits and broad equities.

The proven and established way to encourage interconnections is to provide some economic benefit for each party. Commission staff witness Braitman so testified in this case: "The substantial economic benefits that can be achieved from improved technology and interconnections should also stimulate the formation of new power pools and the expansion of existing ones" (App. 430).

There is no valid basis for the argument that the relative burdens theory is necessary to prevent the imposition of an economic penalty for being the last one to join an interconnected network. An interconnected network or power pool is effected only at substantial expense to the parties first to join in their contributions of transmission and generating facilities. If a party seeks to join an interconnected network or power pool to which it can make no meaningful contribution, an economic penalty is imposed upon the parties first to join who have paid for the existing construction if the party last to join is given a free ride just because the network has already been paid for by others.

In this case the interconnected networks of participants in the Florida Operating Committee have been effected at the very substantial expense of $65 million by Florida Power plus a much greater sum representing the combined expenditures of Florida Power & Light Company, Tampa Electric Company, Orlando Utilities Commission and Jack-

sonville Electric Authority. An economic penalty is imposed upon Florida Power and these other systems, and not upon Gainesville, if Gainesville is given free use of the networks to which by its own admission Gainesville can not contribute much.[24] It is the Commission's refusal to fix any formula for reasonable compensation that imposes an economic penalty.

Nor is it a valid argument that it is necessary to refuse compensation for an extremely valuable service by application of the relative burdens theory in order to maximize the benefits of interconnections by encouraging small systems to install larger generators. The $154,000 a year charge proposed by Florida Power is intended only for the foreseeable future in the light of Gainesville's pronouncement that it "needs and wants" emergency backup service in the magnitude of its largest 50 mw unit and on the basis of the demands that Florida Power's and Gainesville's 1970 load projections impose upon Florida Power's transmission system. The terms of any connection including compensation are always subject to renegotiation as circumstances change on either or both systems. Florida Power witnesses Hebb and Woodson acknowledged the installation of a large, efficient generator by Gainesville would be such a change in circumstances (App. 175, 196). Thus, imposing a charge for standby service is an incentive, not a deterrent, to a small system to install larger generation that will have some value to an interconnection since by doing so the small system can obtain relief from the charge. If given free standby service, the small system has less incentive to install larger generation.

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[24] As previously noted, Gainesville witness Ebaugh, who designed the City's system, stated Gainesville can not contribute much to an interconnection. See Exhibit 100 in Appendix Exhibit Volume. This Exhibit was introduced in evidence at R. 1460.

III.

REPLY TO ARGUMENT GAINESVILLE WOULD NOT IMPOSE AN UNDUE ELECTRICAL BURDEN AND WOULD ASSUME PROPORTIONATE ELECTRICAL RESPONSIBILITIES.

This argument is fundamentally fallacious because it is based upon the premise that sharing burdens and responsibilities has some meaning and significance. The evaluation of burdens and responsibilities on pages 26 to 30 of the Commission's Brief in Case No. 469 in support of this argument is equally fallacious because it is based upon fiction and not fact.

1. *Florida Power's Burdens and Responsibilities.*

The argument that certain so-called loss of load "probability" studies conducted by Commission staff witness Braitman demonstrate the electrical burden that Florida Power can be expected to place upon the connection was correctly labeled by the Court of Appeals "unrealistic as well as vague."

The very name of the studies (loss of load probability) is misleading. The studies assume Florida Power to be an isolated system, which it is not, and that if Florida Power were to suffer a generating deficiency, it could obtain assistance only from Gainesville. The studies ignore the fact Florida Power has many interconnections with five other utilities having resources vastly greater and far more efficient than any reserve generation on the Gainesville system (App. 224-7, 262-3). At best the studies suggest a mere theoretical possibility, not a "probability", of loss of load.

The studies examine Florida Power's generating resources[25] discounted by Company or industry experience

[25] 200 mw purchased by Florida Power under a firm contract with Tampa Electric Company is added to Florida Power's generation. See Exhibit 98 in Appendix Exhibit Volume.

with outages of equipment, in comparison with its load requirements. For example, 625 mw from Florida Power's largest generators is assumed to be available only 86% to 88% of the time (Ex. 98). The comparison shows a theoretical possibility, assuming outage of Florida Power generation coincident with its peak requirements and assuming emergency assistance is not available from any other system, that Florida Power would not be able to supply its load during 1969 for a period of 44 to 53 hours.[26]

The alleged improved system reliability is a reduction in the alleged loss of load "probability" to from 25 to 32 hours[27] computed by examining Florida Power's generation and load requirements in combination with Gainesville's generation and load requirements. The "improvement" is dependent upon a combination of assumptions all of which must occur at the same time (a) Florida Power suffers a loss of load because of assumptions with respect to outage of its generation, as during the 12% to 14% of the time when it is assumed 625 mw will be out of service, (b) Florida Power is not interconnected with any system but Gainesville and is not able to obtain assistance from anyone but Gainesville, (c) Gainesville at the time has unused generation in an amount sufficient to meet Florida Power's deficiency, and (d) Gainesville's unused generation (including the 5 mw, 12.5 mw and 16.5 mw generators which are seldom used and require two hours to be brought on the line) is available instantaneously or within whatever short period of time may be dictated by the emergency.

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[26] The studies say the loss of load probability during 1969 is in the range of 0.0061 to 0.0050. This represents 44 to 53 hours in a year of 365 days with 8760 hours (App. 261-2).

[27] The studies refer to the reduction to a range of 0.0037 to 0.0029 (App. 261-2).

Obviously, these studies are a mere theoretical exercise in arithmetic and do not demonstrate that Florida Power will burden the connection or derive any system reliability from the connection.

On the subject of system reliability, it is argued that some consequence should be attributed to Gainesville's generators, because of their small size, having a greater reliability, i.e. fewer equipment failures, than Florida Power's much larger generators. Admitting this to be true, which it is because Gainesville's small equipment is relatively unsophisticated, obviously Florida Power will derive nothing from the reliability of generators which are too small to take into account in planning and operating its system.

It is also argued Florida Power's system can use the connection as an additional power source for its load in the Gainesville area; whereas Gainesville's principal witness, Mr. Benson, testified the connection proposed by Gainesville, which is the one ordered by the Commission, would not do this (App. 80).[28]

For Gainesville's generation to be an additional power source for Florida Power's loads in the Gainesville area, it would be necessary to construct an interconnection at or near Florida Power's Gainesville substation. The cost of such a connection has been estimated to be about $900,000 based upon 1965 prices (App. 304, 312). Florida Power could not justify incurring any such expense for a fourth power source since it has three power sources for its loads in the Gainesville area and has never suffered an outage which a fourth power source would have prevented (App. 162-3).

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[28] Obviously the connection will not provide Florida Power with an additional power source for its loads in the Gainesville area since the connection is at Archer on Florida Power's 230 kv transmission line and any energy from Gainesville to serve Florida Power's loads in the Gainesville area would have to be returned to the Gainesville area on Florida Power's existing 69 kv line.

2. *Gainesville's Burdens and Responsibilities.*

It is argued that Commission staff witness Braitman's loss of load probability studies show Gainesville will seldom burden the connection with demands for emergency power. These studies and this argument ignore the admitted fact Gainesville "needs and wants" to rely upon Florida Power's backbone transmission network for the continuous availability of instantaneous emergency backup service so as to be able to reduce the City's required reserve of generation from the size of its largest unit (which at the hearings in this case was 50 mw or about 100% of peak load) to 15% of its peak load. Gainesville's use of the connection will be constant, whether or not it is taking power.

There is no validity to the argument that the Commission's Order imposes upon Gainesville the obligation to construct the connection at an estimated cost of $3,000,000 and that this obviates the need to compensate Florida Power for emergency backup service. As previously noted, Gainesville proposes to construct about 7 miles of 115 kv line at an estimated cost of $1.5 million to tap Florida Power's backbone transmission network. Whether the cost of this tap line is $1.5 million or $3 million, it is not an expense which Florida Power could justify incurring or contributing to for its own system because there is no offsetting economic benefit to Florida Power. It, therefore, is not an expense for which Florida Power can give Gainesville any credit in the terms of the interconnection. And since the incurring of this expense by Gainesville is for its own unilateral benefit, it has no relationship or relevance whatsoever to whether Gainesville should pay reasonable compensation for the continuous availability of instantaneous emergency backup service furnished it by Florida Power's backbone transmission network.

Furthermore, the Commission's Order imposes no obligation upon Gainesville because, not being subject to the Commission's jurisdiction,[29] Gainesville can take or leave the Commission's Order. If Gainesville constructs the connection, it will not be because of any obligation imposed by Order of the Commission. It will be done voluntarily to obtain emergency backup service which Gainesville's principal witness testified would give the City savings of $520,000 a year, net after deducting the expense of the connection.

Nor is it valid to attribute any significance to paragraphs (7)(a) and (c) of the Commission's Order which purport to impose upon Gainesville the burden and obligation to maintain installed and operating reserves of 15% of estimated annual peak-hour demand (App. 376-7). If determined from Gainesville's 1965 peak load, these reserves would be only about 9 mw, and if determined from Gainesville's projected 1970 peak load, these reserves would be only about 15 mw. Assuming Gainesville sees fit voluntarily to subject itself to these requirements, the quantities are too small to have any significance or meaning to the interconnection.

In imposing an operating reserve requirement upon Gainesville, the Commission lost sight of the fact that Gainesville, Florida Power and Commission staff witnesses agreed that such a requirement would be meaningless and even "inadvisable." Since the connection will fully protect Gainesville whether or not Gainesville supplies the small amounts of spinning and ready reserve of which it is capable, it will be more economical for Gainesville to

[29] Gainesville is exempt from the Federal Power Act by Sections 3(3) and 201(f). 16 U.S.C.A. Secs. 796 (3) and 824 (f). In fact, Gainesville's electric utility operations are not subject to any regulation, federal or state (App. 58-9).

operate a minimum amount of its own generation and to save the expense of operating its 24 mw, 16.5 mw and other small units whose operation would be necessary to provide a meaningless reserve (App. 94-6, 167-8, 255-6, 322).

IV.

REPLY TO ARGUMENT COMPENSATION FOR EMERGENCY BACKUP SERVICE IS NOT JUSTIFIED BECAUSE OF POTENTIAL BENEFITS TO FLORIDA POWER.

If and to the extent Florida Power does derive any actual benefit from the connection, it will be in the form of capacity and/or energy purchases across the connection for which the Commission's Order provides full compensation to be paid to Gainesville. Actually, the Order requires Florida Power to overcompensate Gainesville for capacity purchases because the capacity charge of $.05 per kw per day in paragraph (7)(g)(2) of the Order is based upon Florida Power's costs which include fixed charges of 15%, whereas Gainesville because of its tax exemptions has fixed charges of only 10% (App. 76). Florida Power, if it were to make a capacity purchase from Gainesville, would be charged a rate violating cost of service rate making principles. See *South Carolina Generating Company v. Federal Power Commission*, 249 F. 2d 755 (C.A. 4, 1957), certiorari denied, 356 U.S. 912.

The Court of Appeals correctly labeled any other alleged benefits to Florida Power "unsubstantial as well as vague."

(1) *Improved system reliability.*

Theorizing that the connection will improve Florida Power's system reliability is shown on pages 36 to 38, *supra*, to be totally unrealistic.

(2) *Saving in capital costs.*

Gainesville argues the connection will provide "a gross saving in capital costs of $6,400,000 with $2,000,000 thereof going to Florida Power." This statement is derived from testimony of Mr. Benson which was rejected by Commission witnesses and ignored by the Presiding Examiner and by the Commission. The $2,000,000 is Mr. Benson's estimate of the cost of installing a 23 mw gas turbine. Mr. Benson did not say the connection would save Florida Power the cost of installing such a unit. Rather Mr. Benson testified if there were a seasonal exchange of capacity the connection would increase Florida Power's sales capacity by this amount.

The Commission makes no such argument in its Brief in Case No. 469.

(3) *Seasonal exchange of capacity.*

Gainesville argues Florida Power would benefit from a seasonal exchange of 20 mw of capacity. This alleged possibility of a seasonal exchange of capacity was responsible in large part for Mr. Benson's theory the connection would increase Florida Power's sales capacity by 23 mw, which he equated to a $2,000,000 gas turbine. See (2) immediately above.

Commission witnesses opposed a seasonal exchange of capacity. The Presiding Examiner and the Commission refused to order a seasonal exchange, and Gainesville took no appeal from the Commission's refusal to order a seasonal exchange. It would seem, therefore, the matter is not properly before this Honorable Court.

The Commission makes no such argument in its Brief in Case No. 469.

(4) *Reduction in capacity purchases from other systems.*

Gainesville argues Florida Power could save $2,800,000 by postponing the installation of new generating facilities. This patently unrealistic suggestion is derived from the fact Florida Power deferred the installation of its 527 mw generator two years by purchasing 200 mw of capacity from Tampa Electric Company. The 36.4 mw reserve capability which Gainesville projected for 1970 is not sufficient to reschedule a 527 mw unit. Furthermore, a 527 mw unit can be deferred only by purchasing firm power from some one. To the extent Gainesville could supply power to defer such a unit, Florida Power would have to pay Gainesville for this power, and payments to Gainesville would offset any reduction in payments to some one like Tampa. While Gainesville because of tax exemptions has lower fixed charges and lower capacity costs than a system like Florida Power or Tampa, the purchase of power to defer installation of a 527 mw generator involves the purchase of capacity and energy. Gainesville's small generators are less efficient and more costly in supplying energy than the large generators of a system like Tampa. It, therefore, probably would cost more to purchase power from Gainesville than from Tampa, and Florida Power would suffer a loss rather than realize a benefit.

The Commission makes no such Argument in its Brief in Case No. 469.

V.

THE DECISION OF THE COURT OF APPEALS DOES NOT INFRINGE UPON THE COMMISSION'S EXERCISE OF INFORMED JUDGMENT IN A TECHNICAL AND COMPLEX FIELD.

In this case the Commission failed to exercise its informed judgment when it provided compensation for every

service except emergency backup service which is the principal and underlying reason for the connection. The decision of the Court of Appeals remands the case to the Commission to have it exercise its informed judgment by fixing some formula for computing reasonable compensation for "an extremely valuable service" which is the "number one" service which Gainesville needs and wants. The Court was extremely careful not to infringe upon the Commission's exercise of its expertise, saying, "we do not even whisper what that formula should be." The Court left the Commission complete latitude within which to exercise its judgment by fixing a formula based upon a sharing of costs or a splitting of benefits or something completely different. The decision merely requires the exercise of judgment without in any way interfering with how it shall be exercised.

CONCLUSION

The judgment of the Court of Appeals should be affirmed.

Respectfully submitted,

RICHARD W. EMORY,
ROBERT A. SHELTON,
S. A. BRANDIMORE,
Attorneys for Respondent.

January 1971

APPENDIX

EXCERPT FROM ORAL ARGUMENT BEFORE THE FEDERAL POWER COMMISSION ON JULY 9, 1968

(1682) (Commissioner Carver) Suppose the company just filed a rate schedule for this kind of service, fixing the charges for it?

(Mr. Spiegel) Yes, sir.

(Commissioner Carver) The same kind of service you are asking for.

(Mr. Spiegel) Yes, sir.

(Commissioner Carver) What would be your remedies, if any, with complying with that service and taking it on their terms?

(Mr. Spiegel) Well, then, of course—

(Commissioner Carver) Gainesville is the only one, but you know that is just happenstance. Isn't it within their jurisdiction to file such a schedule?

(Mr. Spiegel) Yes. It is your jurisdiction to decide whether the terms are reasonable.

(Commissioner Carver) Now, that gets us to the point, what is the basis for that compensation as you see the law?

(Mr. Spiegel) Well, that is the other part of the case. The basis for it is this, that you have in Florida a pool, and a system which stops being isolated and becomes part of the pool.

(Commissioner Carver) Now, wait a minute. What I am trying to get at is, let's not talk about the pool, let's talk about Florida Power Corporation.

(1683) You said it is a monopoly now.

(Mr. Spiegel) The transmission service, yes, sir.

(Commissioner Carver) Let's just look at it. Must we consider its pool connections in determining its terms and conditions for basis—

(Mr. Spiegel) I would think so. As a matter of fact, I would think so, and I would say this, that if you look at that company by itself, that they were isolated, I am not so sure we would have anything we could rely on. They run figures of reserve of seven or eight percent of their load. They are running very close, and the only reason they can run so close as to reserves is because they are part of a pool.

Now the answer to your question is this: What kind of service are we asking and what should we pay for it? We are asking, number one, we can live without everything else, but number one, we are asking for emergency backup service. We are saying if we have trouble, and you have spare capacity, you help us, and we say in reply that we will make available to you all the spare capacity we have when you are in trouble.

(Commissioner Carver) Now, Florida Power Corporation is your defendant.

(Mr. Spiegel) That is right.

(Commissioner Carver) You just said they don't have any (1684) service for you if you don't take into account their pool situation.

(Mr. Spiegel) Well, I don't think I said it like that. It is a pretty thin reserve they have.

(Commissioner Carver) Let's take your statement.

They might be able reasonably to deny you if they — if you looked at them by themselves.

(Mr. Spiegel) Well, the point is, it is on a when, as and if basis they make it available, and they don't have it, they don't have to make it available to us.

(Commissioner Carver) What they do have is the net product of their interconnections, is that true?

(Mr. Spiegel) That is correct.

(Commissioner Carver) And this makes it valuable to Gainesville.

(Mr. Spiegel) That is absolutely true.

(Commissioner Carver) Are you supposed to pay for that?

(Mr. Spiegel) Well, we enter the pool, we pay what everybody else pays on a fair pro rata share.

(Commissioner Carver) But you take the pool as it has all been put together. You have been laying out of it for 30 years.

(Mr. Spiegel) Well, one thing, we have grown big enough where the pool is important in our thinking, and these things are historic. Let's assume that to be the case. If there (1685) are some payments we owe to them because of capital benefits that have been stored up in the past, of course we have to come in on a fair basis — like a man joins a church, and they say "Wait a second, you waited until the church was built," and make him take out a membership as before the church was built.

(Commissioner Carver) So you disagree with Staff, who says you take it as it is, and go from there.

(Mr. Spiegel) I think I am being big about it, because I don't think there is any such thing in existence. The theory is there. The important thing is, and the heart of it is this: We come to them, and we pay for it. We are putting up $2 million, they are not putting up a cent when we interconnect with them, and we have agreed, and the Examiner has fixed a 15 percent reserve ratio for us, we are making available to them, just as though it was their own capacity, some 15,000 — this is where the argument is, something between 15,000 and 14,000 kilowatts, which is available to them just as though it were their own machines, and doesn't cost them anything, and that is 15,000 — let's say the minimum figure, $150.00 a kilowatt, that is a million and a half investment they don't have to make, but in effect, they get the benefit of it.

* * * * * *

Docket No. E-7257
FLORIDA POWER CORPORATION
Exhibit No. 34[1]
Witness: M. F. Hebb, Jr.

FLORIDA POWER CORPORATION
ESTIMATED FUTURE ANNUAL DEMANDS
1967-1975

Year	*Demand (MW)*
1967	1,510
1968	1,610
1969	1,718
1970	1,826
1971	1,937
1972	2,053
1973	2,173
1974	2,296
1975	2,424

[1] Introduced in evidence at R. 967.

Docket No. E-7257
FLORIDA POWER CORPORATION
Exhibit No. 40[2]
Witness: M. F. Hebb, Jr.

CONTRACT
FOR
INTERCONNECTION AND ELECTRIC SERVICE
BETWEEN
FLORIDA POWER CORPORATION
AND
CITY OF GAINESVILLE, FLORIDA

Section 0.1. THIS CONTRACT, made and entered into this ..... day of ....., 196....., by and between FLORIDA POWER CORPORATION, a private corporation organized and existing under the laws of the State of Florida, herein referred to as the "CORPORATION", party of the first part, and the CITY OF GAINESVILLE, FLORIDA, a municipal corporation organized and existing under the laws of the State of Florida, herein referred to as the "CITY", party of the second part;

WITNESSETH

Section 0.2. Whereas, the parties hereto have entered into a separate contract in the public interest under which the parties have established mutually agreeable service territories in Alachua County in the area outside of and contiguous to the boundary of the municipal corporation, and will file this service territory contract with the Florida Public Service Commission for its approval; and

Section 0.3. Whereas, the parties hereto deem it desirable that this arrangement be made for the interconnection of the generating and transmission system of the COR-

[2] Introduced in evidence at R. 967. As introduced in evidence, Exhibit 40 did not include Schedule D (pp. 21a to 25a, *infra*) for Firm Interchange Electric Service because Gainesville had insisted it did not want to purchase any firm service. Schedule D was added in the brief filed with the Presiding Examiner in order to give Gainesville the opportunity to avail itself of this additional service should it see fit to do so.

PORATION with the generating and transmission system of the CITY at the point established as herein provided; and

Section 0.4. Whereas, each party desires to establish the terms and conditions of the interconnection arrangement for their respective systems.

Section 0.5. Now, Therefore, in consideration of the foregoing premises and of the mutual benefits to be obtained from the covenants herein set forth, the parties hereto do hereby agree as follows:

ARTICLE I

TERM OF CONTRACT

Section 1.1 — Term: The term of this CONTRACT shall commence on the ..... day of ....., 196....., and shall continue in effect for a period of five years, and thereafter shall automatically be extended for succeeding periods of three years each except that this CONTRACT may be cancelled by either party upon three years' written notice to the other party, or as provided in Section 9.1.

ARTICLE II

INTERCONNECTION POINT

Section 2.1 — Interconnection Point: The CORPORATION and the CITY agree to construct, maintain and continue in operable condition facilities to effectively use a 115,000 nominal volt connection at the Archer substation of the CORPORATION or as later determined pursuant to Section 2.2.

Section 2.2 — Ownership: The ownership of the 115,000 volt connection facilities shall be as follows:

(1) The CORPORATION and the CITY shall mutually determine ownership of facilities in the Archer substation. The CORPORATION shall, however, provide and own all metering equipment.

(2) The CITY shall provide and own all transmission line and interconnection facilities from a point on the CITY'S system to the 115,000 volt connection at CORPORATION'S Archer substation; provided, however, the CITY agrees that all or any part of its 115,000 volt trans-

mission line shall be made available for purchase by the CORPORATION from time to time in order that CORPORATION may serve customers within its service area. Such purchase shall be on the basis of depreciated book cost.

Section 2.3 — Delivery Point: The point of delivery shall be the metering point as it shall be located from time to time subject to the provisions relating to ownership of facilities in Section 2.2.

Section 2.4 — Accessory Facilities: The parties hereto will provide communication, telemetering, load-control and frequency-control equipment and such other facilities for load dispatching purposes and for control of power flow and flow of reactive kva as is now or may hereafter reasonably be required in accordance with good, modern practice.

Section 2.5 — Parties Responsible: Each party hereto shall provide, operate, and maintain at its own cost and expense such of the equipment and facilities as may be constructed pursuant to the foregoing provisons of this ARTICLE II.

ARTICLE III

OPERATION

Section 3.1 — Administrative Committee: Each party shall appoint one person to an Administrative Committee. This committee shall represent the parties in all matters arising under this CONTRACT which may be delegated to it by mutual written agreement of the parties hereto. Each party shall cooperate in providing to the Administrative Committee all information required in the performance of its duties. If the Administrative Committee is unable to agree unanimously on any matter falling under its jurisdiction, such matter shall be referred by the members of the Administrative Committee to the parties for decision. All decisions and agreements made by the committee shall be evidenced in writing.

Section 3.2 — Operating Committee: Each party shall appoint one person to be a member of an Operating Com-

mittee, who shall be a responsible person connected with day-to-day operations of each of the parties hereto. This committee shall operate under the direction of the Administrative Committee and shall perform the duties as may be required of it by the Administrative Committee. Such duties shall include preparation of operation and maintenance schedules, control and operating procedures, and supervision of accounting functions. If the Operating Committee is unable to agree unanimously on any matter falling under its jurisdiction, such matter shall be referred to the Administrative Committee for decisions. All decisions and agreements made by the committee shall be evidenced in writing.

Section 3.3—Parallel Operation: Systems of the CORPORATION and the CITY shall normally be operated in parallel, with circuits closed at the interconnection point set forth under Section 2.1 hereof, except as may be otherwise mutually arranged by authorized representatives of the parties hereto, and except during normal switching operations or as follows:

(1) It is recognized that due to the extreme differences in size of the electric systems of the two parties, power will immediately flow for an indeterminable length of time from the CORPORATION to the CITY upon sudden outage or maloperation of generating equipment in the CITY'S system.

(2) It is further recognized that the system of CORPORATION is exposed to unavoidable power flows to the CITY; therefore, if the flow of power over the system of either party is detrimental to customer's service, or is detrimental to the system operation of either party, or results in abnormal transmission losses on either system, then the party which in its judgment so suffers injury shall have the right to open the interconnection to relieve its system of the burden being imposed upon it by such flow of power and keep said interconnection open until such impairment is overcome,

provided, however, that notice shall be given to the other party when practicable before any interconnection is opened.

Section 3.4—Reactive KVA: Each party shall endeavor to supply the reactive kva required on its own system, except as otherwise mutually agreed between the parties from time to time. Neither party shall be obligated to supply reactive kva to the other party when to do so would interfere with service on its own system, would limit the use of interconnection facilities, or would require operation of generating equipment not otherwise required. If the flow of reactive kva over the interconnection is detrimental to customer service or system operation of either party, then the party which in its judgment so suffers injury shall have the right to open the interconnection between the parties hereto to relieve its system of the burden imposed upon it by such flow of reactive kva; provided, however, that prior notice shall be given to the other party when practicable, so that any feasible corrective measures may be put into effect before opening the interconnection.

Section 3.5—Regulation of Transfer of Power and Energy: The parties hereto agree that it is the responsibility of each party to operate its power supply facilities so as to supply its own system load at all times, except as may otherwise be provided for herein or as mutually agreed, and to hold deviations from scheduled deliveries to a minimum. To this end, the CITY shall provide and operate load control equipment acceptable to the CORPORATION and in accordance with standard practice so as to avoid making objectionable demands upon the CORPORATION'S system during normal operation. The CITY agrees to conduct its operations in accordance with currently accepted practices in interconnected electric utility operations.

ARTICLE IV

ELECTRIC SERVICE

Section 4.1—Electric Service: It is recognized that transfer of various specific classes of service and the rates

applicable to each class of electric service must necessarily depend upon the conditions existing from time to time. The sale and purchase of specific classes of electric service and the terms, arrangements and rates applicable thereto are set forth in three Electric Service Schedules, which Service Schedules have been executed by the parties hereto and which are a part of this CONTRACT. These Service Schedules are respectively referred to as:

Service Schedule A—Emergency Electric Service

Service Schedule B—Scheduled Electric Service

Service Schedule C—Economy Energy Service

Section 4.2—Inadvertent Transfer of Electric Energy: Inadvertent transfer of energy is a transfer of energy between the systems of the parties hereto in excess of the scheduled delivery as a result of the inherent physical and electrical characteristics of the systems, limitations in the equipment used to control the flow of power between the systems or limitations in the operation of such equipment. Inadvertent transfers of energy shall be returned in kind at times mutually agreed upon (when the value of the energy to the party to which such energy is returned is substantially equal to the cost of the corresponding energy originally delivered), or such energy be paid for. At any time either party may require a cash settlement, upon thirty (30) days' notice at a rate determined in accordance with Service Schedule B, Section B 0.4, as it relates to energy.

ARTICLE V

METERING PROVISIONS

Section 5.1—Metering: CORPORATION shall install necessary metering equipment to permit determination of the amounts of electric power and energy transmitted over the interconnection described in Section 2.1 hereof.

All meters pertaining to billing shall be sealed and shall, except in an emergency, or as provided below, be opened

only in the presence of authorized representatives of both parties hereto. The meters and associated equipment of each party shall be tested and inspected annually, unless otherwise mutually agreed. The party making such tests shall give the other party at least ten days' notice in order that the other party may, at its option, be represented at the test. Said parties shall make additional tests and inspections of their meters upon request of the other party. If any test or inspection shows any meter to be inaccurate by more than one per cent, fast or slow, an adjustment in billing between the parties shall be made during the following month for a preceding period of not more than thirty days to adjust for the amounts by which the meters are shown to have been in error; and the meter or other equipment found to be inaccurate or defective shall promptly be repaired, adjusted, or replaced by the party owning it. Each party shall promptly report to the other party an adjustment, repair, or replacement of any metering equipment. Should one party's meters fail to register at any time, deliveries during the period of failure shall be determined from the other party's meters or by other mutually satisfactory means.

Section 5.2—Meter Reading: For billing purposes, all meters shall be read at 4:00 o'clock p.m. on the last day of each month, or as near thereto as practicable. Copies of recordings, kwhr consumptions and maximum kw demands shall be assembled for billing and record purposes.

ARTICLE VI

ELECTRIC GENERATING CAPACITY

Section 6.1—Electric Generating Capacity to be Provided: In consideration of the relative size and configuration of each of the systems, the CITY agrees that it will provide reserve capacity in such amount that its power supply will at all times be equal to at least 125 per cent of the CITY'S actual peak load requirements. It is expressly understood that deliveries under Service Schedule C shall not be used in calculating the aforementioned reserve capacity requirements.

Section 6.2—Generating Capacity Additions by City: It is mutually agreed that the CITY may schedule its generating capacity additions to be as large and economical as it may independently determine.

ARTICLE VII

BILLING AND PAYMENT

Section 7.1—Presentation and Payment: Each of the parties shall submit to the other, as promptly as possible after the first of each month, written bills for the respective amounts due it under the terms of this CONTRACT for the preceding calendar month and all such bills shall be due and payable within ten (10) days.

Section 7.2—Disputed Bill: In case any portion of any bill be in bona fide dispute, the undisputed amount shall be payable when due; and the remainder, if any, upon determination of the correct amount shall be paid promptly after such determination.

ARTICLE VIII

FORCE MAJEURE AND INDEMNIFICATION

Section 8.1—Force Majeure: In case either party hereto should be delayed in or prevented from performing or carrying out any of the agreements, covenants, and obligations made by and imposed upon said parties by this CONTRACT by reason of or through strike, stoppage in labor, failure of contractors or suppliers of materials, riot, fire, flood, ice, invasion, civil war, commotion, insurrection, military or usurped power, order of any Court granted in any bona fide adverse legal proceedings or action, order of any civil or military authority either de facto or de jure, explosion, act of God or the public enemies or any cause reasonably beyond its control and not attributable to its neglect; then, and in such case or cases, such party shall not be liable to the other party for or on account of any loss, damage, injury, or expense resulting from or arising out of

such delay or prevention; provided, however, that the party suffering such delay or prevention shall use due and, in its judgment, practicable diligence to remove the cause or causes thereof; and provided, further, that neither party shall be required by the foregoing provisions to settle a strike except when, according to its own best judgment, such a settlement seems advisable.

Section 8.2 — Responsibility and Indemnification: Each party hereto expressly agrees to indemnify and save harmless and defend the other against all claims, demands, costs, or expense for loss, damage, or injury to persons or property, in any manner directly or indirectly connected with or growing out of the generation, transmission, or use of electric capacity and energy on its own side of the point of ownership hereunder unless such claim or demand shall arise out of or result from the negligence or willful misconduct of the other party, its agents, servants, or employees; provided, however, that neither party hereby assumes responsibility for damage or injury to employees of the other party.

ARTICLE IX

MISCELLANEOUS

Section 9.1 — Regulation: In the event this CONTRACT is changed or modified by any regulatory agency or authority, either party, if adversely affected to a material extent, shall have the right to terminate this CONTRACT on six (6) months' written notice to the other party.

Section 9.2 — Waivers: Any waiver at any time by any party hereto of its rights with respect to the other party or with respect to any matter arising in connection with this CONTRACT shall not be considered a waiver with respect to any subsequent default or matter.

Section 9.3 — Successors and Assigns: This CONTRACT shall inure to the benefit of and be binding upon the parties hereto only, and their respective successors and as-

signs, and shall not be assignable by either party without the written consent of the other party except as to a successor in the operation of its properties by reason of a merger, consolidation, sale or foreclosure where substantially all such properties are acquired by such a successor.

Section 9.4 — Notices: Any notice, demand, or request required or authorized by this CONTRACT shall be deemed properly given if mailed, postage prepaid, to Florida Power Corporation, St. Petersburg, Florida, in the case of the CORPORATION; and to the Electric Utilities Department, City of Gainesville, Florida, in the case of the CITY; or to such other person as may be designated by the CORPORATION or by the CITY as hereinafter provided. The designation of the person to be notified or the address of such person may be changed by the CORPORATION or the CITY at any time, or from time to time, by similar notice.

IN WITNESS WHEREOF, the parties hereto have caused this CONTRACT to be executed by their duly authorized officers, and copies delivered to each party, as of the day and year first above stated.

FLORIDA POWER CORPORATION

By .....
President

Attest:

By .....
Secretary

CITY OF GAINESVILLE, FLORIDA

By .....
Mayor

Attest:

By .....
Clerk

SERVICE SCHEDULE A

EMERGENCY ELECTRIC SERVICE

IT IS AGREED this Service Schedule A will be effective under, and a part of, the contract dated ..... for interconnection and electric service supplied between the Florida Power Corporation and the City of Gainesville, Florida, hereinafter referred to as the "CONTRACT".

Section A 0.1 — Term: The term of this Service Schedule A shall be concurrent with and identical to the term stipulated in Section 1.1 of this CONTRACT.

Section A 0.2 — Emergency Electric Service: Emergency electric service, for the purpose of this schedule, shall mean emergency power supplied by either party for use under emergency conditions, when such party is temporarily unable to supply its required power and energy from normally available sources. It is agreed that a condition of deficiency in the CITY'S power supply occasioned by shortage of system facilities, water, fuel or other supplies, which has resulted from failure of the CITY to follow recognized good engineering practice, shall not be considered an emergency condition for the purposes of this Service Schedule A but shall, instead, constitute a reduction in the CITY'S recognized power supply.

It is understood and agreed that the power and energy received by either party under emergency conditions when the period of such receipt of power and energy is less than sixty (60) minutes shall be classified as inadvertent interchange of energy and shall be treated as set forth in Section 4.2, Article IV, of the CONTRACT, of which this Service Schedule A is a part.

If, as determined by either party, such party is able to continue delivery of power for more than sixty (60) minutes, all of the power and energy taken after said sixty (60) minute period shall be treated as scheduled electric service, as provided for under Service Schedule B.

Section A 0.3 — Payment for Emergency Electric Service: As consideration for: (1) The CORPORATION being obligated under this CONTRACT to supply instantaneous emergency power to the CITY, the CITY agrees to pay the CORPORATION, in addition to any other rates and charges stipulated in this CONTRACT, an annual charge of $3.08 per kw for 100 per cent of the maximum net generating capability of the CITY'S largest generating unit.

(2) As consideration for the CITY supplying emergency power to the CORPORATION when requested and if available, such service shall be scheduled electric service and the CORPORATION agrees to pay the CITY as provided for under Service Schedule B, Section B 0.4 (2).

Section A 0.4 — Emergency Energy: Energy supplied under emergency conditions shall be returned by the receiving party under the conditions set forth in Section 4.2 of the CONTRACT.

IN WITNESS WHEREOF, the parties hereto have caused this Service Schedule A to be executed by their duly authorized officers, and copies delivered to each party, as of the day and year first above stated.

FLORIDA POWER CORPORATION

By .....
President

Attest:

By .....
Secretary

CITY OF GAINESVILLE, FLORIDA

By .....
Mayor

Attest:

By .....
Clerk

SERVICE SCHEDULE B

SCHEDULED ELECTRIC SERVICE

IT IS AGREED this Service Schedule B will be effective under, and a part of, the contract dated ..... for interconnection and electric service supplied between Florida Power Corporation and the City of Gainesville, Florida, hereinafter referred to as the "CONTRACT".

Section B 0.1 — Term: The term of this Service Schedule B shall be concurrent with and identical to the term stipulated in Section 1.1 of the CONTRACT.

Section B 0.2 — Scheduled Electric Service During Maintenance of Facilities: Scheduled electric service is capacity and energy arranged in advance in either direction.

Section B 0.3 — Scheduled Electric Service Commitments: Each scheduled electric service commitment shall be evidenced by duplicate copies of a letter of commitment, which document shall provide appropriate space thereon for acceptance.

Such records shall be made in all cases including those involving scheduled electric service initiated because of emergencies as provided for under Schedule A.

Section B 0.4—Payment for Scheduled Electric Service:

(1) The CITY shall pay for scheduled electric power and energy monthly at the following daily charges:

DEMAND—$0.0833[3] per kw for each kw of scheduled demand or actual recorded demand, whichever is greater; PLUS:

ENERGY—at the rate of four (4) mills per kwh or the Seller's average fuel cost plus ten per cent (10%) whichever is less at the tie.

---

[3] Changed to $0.05 per kw in Brief filed with Presiding Examiner.

(2) The CORPORATION shall pay for scheduled electric power and energy monthly at the following daily charges:

DEMAND—$0.05 per kw for each kw of scheduled demand or actual recorded demand, whichever is less; PLUS

ENERGY—at the rate of four (4) mills per kwh or the Seller's average fuel cost plus ten per cent (10%) whichever is less at the tie.

Section B 0.5—Actual Recorded Demand: Actual recorded demand shall mean the kwh per one hour as determined by the differences between consecutive hourly readings of the billing kwh meter. It is agreed telemeter readings as received at the Dispatching Offices may be used for this purpose.

IN WITNESS WHEREOF, the parties hereto have caused this Service Schedule B to be executed by their duly authorized officers, and copies delivered to each party, as of the day and year first above stated.

FLORIDA POWER CORPORATION

By .....
President

Attest:

By .....
Secretary

CITY OF GAINESVILLE, FLORIDA

By .....
Mayor

Attest:

By .....
Clerk

SERVICE SCHEDULE C

ENCONOMY ENERGY ELECTRIC SERVICE

IT IS AGREED this Service Schedule C will be effective under, and a part of, the contract dated ..... for interconnection and electric service between the Florida Power Corporation and the City of Gainesville, Florida, hereinafter referred to as the "CONTRACT".

Section C 0.1—Term: The term of this Service Schedule C shall be concurrent with and identical to the term stipulated in Section 1.1 of the CONTRACT.

Section C 0.2—Economy Energy Electric Service: Economy energy electric service as used herein shall mean electric energy which one party (Seller) can produce at a cost which is lower than the cost the other party (Buyer) would incur by producing equivalent energy from other available sources, and which energy the Seller is willing and able to sell and deliver to the Buyer.

It is understood and agreed that a party is entitled to purchase economy energy only at such times that such party has alternate dependable capacity including adequate reserves that could otherwise be used.

Section C 0.3—Purchase and Sale of Economy Energy: At any time that either of the parties desires to purchase economy energy and the other party is willing and able to supply such economy energy, the two parties may effect such purchase and sale under the provisions of this Service Schedule C. Such purchase and sale shall be entirely voluntary on the part of each party. The price to be paid by the Buyer to the Seller shall be the price calculated at the time of such agreement in accordance with Section C 0.4 hereof.

If an emergency should occur on either system during the sale of economy energy, the Buyer shall as soon as possible supply his energy requirements and the specific agreement for the sale and purchase of economy energy shall be terminated.

Section C 0.4—Rates and Compensation: Payment for energy scheduled hereunder shall be calculated in accordance with the following rate:

$$\text{Rate per kwhr} = \frac{A + B}{2}$$

when:

A = The cost of supplying energy involved from resources of the Buyer.

B = The cost of supplying energy involved from resources of the Seller.

IN WITNESS WHEREOF, the parties hereto have caused this Service Schedule C to be executed by their duly authorized officers, and copies delivered to each party, as of the day and year first above stated.

FLORIDA POWER CORPORATION

By .....
President

Attest:

By .....
Secretary

CITY OF GAINESVILLE, FLORIDA

By .....
Mayor

Attest:

By .....
Clerk

SERVICE SCHEDULE D

FIRM INTERCHANGE ELECTRIC SERVICE

IT IS AGREED this Service Schedule D will be effective under, and a part of, the contract dated ..... for interconnection and electric service between the Florida Power Corporation and the City of Gainesville, Florida, hereinafter referred to as the "CONTRACT".

Section D 0.1—Term: The term of this Service Schedule D shall be concurrent with and identical to the term stipulated in Section 1.1 of the CONTRACT.

Section D 0.2—Firm Interchange Electric Service: Firm interchange electric service shall mean capacity and the accompanying energy whereby one party (Seller) shall deliver to the other party (Buyer) after commitment certain quantities of capacity and the accompanying energy provided, however, Seller shall neither commit for the delivery of capacity in excess of one-half the Buyer's peak load forecast for the commitment period, nor for less than 10,000 kilowatts. The Buyer will normally supply to the Seller during the commitment period an advance daily schedule of capacity and accompanying energy to be delivered hereunder. The Seller shall make every effort to conform with the Buyer's daily schedules up to the amount of the firm interchange electric service commitment.

Section D 0.3—Condition: It is a condition of this Service Schedule D that firm interchange electric service may be committed by the CITY to the CORPORATION only in such amount that the CITY'S total remaining net capacity available to its system is equal but not less than 135% of its expected maximum sixty (60) minute integrated power requirement, expressed in kilowatts, during the term of the commitment.

The time interval for determining a sixty (60) minute integrated power requirement shall be between the clock hours.

Section D 0.4—Firm Interchange Electric Service Commitments: Each party will determine its needs for firm

interchange electric service from time to time and will negotiate with the other party for such service, and to the extent such service can be made available, a commitment may be made between the parties hereto for such service.

Each firm interchange electric service commitment period shall be not less than twelve (12) months nor more than thirty-six (36) months. Such commitment shall be evidenced by duplicate copies of a letter of commitment signed by both parties.

Section D 0.5—Payment for Service: For firm interchange electric service made available from one party to the other, the Buyer shall pay to the Seller each month an amount for capacity demand and energy computed at the following monthly charges:

A. DEMAND

(1) For firm interchange electric service made available by the CITY to the CORPORATION, the CORPORATION shall pay to the CITY a demand charge equal to $..... per kilowatt for each kilowatt of billing demand. (2) For firm interchange electric service made available by the CORPORATION to the CITY, the CITY shall pay to the CORPORATION a demand charge equal to $1.35 per kilowatt for each kilowatt of billing demand.

B. ENERGY

The energy charge shall be negotiated for each firm interchange electric service commitment, and such charges shall be set forth in the letter of commitment referred to in Section D 0.4.

Billing demand hereunder shall be the firm interchange electric service capacity commitment in kilowatts (kw), unless modified as set forth in Section D 0.6. Actual hourly demand shall be recorded by appropriate meters, and is defined as the kilowatt hours per one (1) hour, as determined by the differences between consecutive hourly readings of the billing kilowatt hour meter. It is agreed tele-

metered readings as received in the Dispatching Offices may be used for this purpose. The time intervals for determining the sixty (60) minute integrated power demand shall be between the clock hours.

Section D 0.6 — Billing Demand Adjustments Within Contract Period: If at any time the Buyer is receiving power under the provisions of Section D 0.2, and the actual supply of power to the Buyer exceeds the specified billing demand up to five per cent (5%) because of limitations of the control system to accurately control the flow of power to the exact amount specified, no demand charge for such excess power flow shall be made. If, however, the Buyer imposes a demand on the Seller in excess of the specified billing demand above five per cent (5%), a new billing demand is thereby established, and the Buyer shall pay for such greater demand only for the billing month during which such greater demand was taken. The demand of the Buyer in excess of the then effective billing demand shall be exempt from this adjustment in billing demand if such excess is caused by an emergency as defined in Service Schedule A of the CONTRACT, in which case the excess power, if made available to the Buyer, shall be billed in accordance with the provisions of said Service Schedule A.

In the event the parties have reached an agreement upon the terms of a commitment under this Service Schedule D and the Buyer requests the Seller to deliver power up to the amount of the then established billing demand, which power, after reasonable notice from the Buyer to the Seller, Seller fails to make available for reasons other than the uncontrollable forces as defined in Section 8.1, Article VIII, of the CONTRACT, or malfunction of system facilities as herein provided, the billing demand shall be adjusted downward to a lesser figure representing the quantity which the Seller is willing and able to make available. Such downward adjustment shall be made retroactively from the beginning of the term of the commitment and shall continue to the end of the term of the commitment. It is the intent of the parties that malfunctions of system

facilities shall be considered reasonably beyond the control of either party. In the event of such malfunctions to the Seller's equipment during the term of a firm interchange electric service commitment, if, within four (4) hours after such malfunction, the Seller is unable to deliver power up to the amount of the firm interchange electric service commitment by using all the remaining facilities available, then the billing demand for that current month shall be adjusted downward to a lesser figure representing the quantity which the Seller is able to make available. If, within four (4) hours after a malfunction, the Seller is able to resume delivery of the full amount of the firm interchange electric service commitment, then there shall be no adjustment to the billing demand.

If, in any month during the term of a firm interchange electric service commitment, there are circumstances to cause more than one adjustment to the billing demand, that circumstance which results in the lowest billing demand shall be the one upon which the billing demand adjustment shall be based.

Section D 0.7 — Tax Adjustment: To the base demand and energy charges shall be added the applicable proportionate part of any taxes and assessments (except Federal Income Taxes), imposed by any governmental authority in excess of those in effect as of the date of the CONTRACT, which are assessed on the basis of meters or customers, or the price of or revenue from electric energy or services sold, or the volume of energy generated or purchased for sale or sold. In the event either party pays a gross receipts tax to the State of Florida under Section 203.01, Florida Statutes, in respect of interchanges hereunder, such party making such tax payment shall be fully reimbursed in such manner by the party purchasing the electric energy.

IN WITNESS WHEREOF, the parties hereto have caused this Service Schedule D to be executed by their duly authorized officers, and copies delivered to each party, as of the day and year first above stated.

FLORIDA POWER CORPORATION

By .....
President

Attest:

By .....
Secretary

CITY OF GAINESVILLE, FLORIDA

By .....
Mayor

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